

CLAIMS

1. A medicament for prevention/treatment of atherosclerosis comprising a GM3 synthase inhibitor.
- 5 2. A medicament for prevention/treatment of atherosclerosis comprising an inhibitor for expression of GM3 synthase gene.
3. The medicament of claim 1 or 2, wherein GM3 synthase is a protein comprising the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, its partial peptide or a salt thereof.
- 10 4. The medicament of claim 1 or 2, wherein GM3 synthase is a protein consisting of the amino acid sequence of SEQ ID NO: 1, or a salt thereof.
5. An antisense polynucleotide comprising a base sequence complement to or substantially complement to that of the polynucleotide coding for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial
15 peptide thereof.
6. A medicament comprising the antisense polynucleotide of claim 5.
7. The medicament of claim 6, which is a medicament for prevention/treatment of atherosclerosis.
8. An siRNA or shRNA to the polynucleotide coding for the protein having the
20 same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof.
9. A medicament comprising the siRNA or shRNA of claim 8.
10. The medicament of claim 9, which is a medicament for prevention/treatment of atherosclerosis.
- 25 11. A medicament for prevention/treatment of atherosclerosis comprising an antibody to GM3 synthase.
12. A diagnostic product for atherosclerosis comprising an antibody to GM3 synthase.
13. A diagnostic product for atherosclerosis comprising a polynucleotide coding

for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof.

14. A method of diagnosing atherosclerosis which is characterized by using an antibody to GM3 synthase or a polynucleotide coding for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof.

15. Use of antibody to GM3 synthase or a polynucleotide coding for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof, for manufacturing a diagnostic product for atherosclerosis.

16. A method of diagnosing atherosclerosis which is characterized by quantifying GM3 in blood plasma of mammal.

17. Use of GM3 for diagnostic marker of atherosclerosis.

18. A method of diagnosing atherosclerosis which is characterized by quantifying GM3 synthase in blood plasma of mammal.

19. Use of GM3 synthase for diagnostic marker of atherosclerosis.

20. A method of screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by using the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, its partial peptide or a salt thereof.

21. A kit for screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by comprising the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, its partial peptide or a salt thereof.

22. A method of screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by using a polynucleotide coding for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof.

23. A kit for screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by comprising a polynucleotide coding for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof.

24. A method of screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by assaying an activity of the protein comprising the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, its partial peptide or a salt thereof.
- 5 25. A method of screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by quantifying the protein comprising the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, its partial peptide or a salt thereof.
26. A method of quantifying the protein comprising the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, its partial peptide or a salt thereof,
10 which is characterized by using an antibody to GM3 synthase.
27. A method of screening a prophylactic/therapeutic agent for atherosclerosis which is characterized by quantifying a polynucleotide coding for the protein having the same or substantially the same amino acid sequence as that of SEQ ID NO: 1, or a partial peptide thereof.
- 15 28. A method for preventing/treating atherosclerosis which is characterized by inhibiting GM3 synthase.
29. A method for preventing/treating atherosclerosis which is characterized by inhibiting an expression of GM3 synthase.
30. A method for preventing/treating atherosclerosis which is characterized by
20 administering an effective amount of GM3 synthase inhibitor to mammals.
31. A method for preventing/treating atherosclerosis which is characterized by administering an effective amount of inhibitor for expression of GM3 synthase to mammals.
32. Use of GM3 synthase inhibitor for manufacturing a prophylactic/therapeutic
25 agent for atherosclerosis.
33. Use of inhibitor for expression of GM3 synthase for manufacturing a prophylactic/therapeutic agent for atherosclerosis.